

Remarks/Arguments

The enclosed is responsive to the Examiner's Final Office Action mailed on May 18, 2007. At the time of mailing of the Office Action claims 8, 30-37 were pending. Claims 8, 30-37 were rejected. By way of the present response the Applicants have: 1) amended claim 8; 2) canceled no claims; 3) added no new claim; and 4) argued the patentability of the Applicants' independent claim 1. As such, claims 8 and 30-37 are now pending. The Applicants respectfully request reconsideration of the claims in view of the following arguments and remarks.

Rejections under 35 U.S.C. § 103(a):

The Office, in the Office Action mailed on May 18, 2007, has rejected claim 8 as being unpatentable over U.S. Patent No. 6,185,474 (hereinafter NAKUMURA) in view of U.S. Patent No. 6,526,330 (hereinafter SORAOKA) and U.S. Patent No. 6,185,474 (hereinafter NAKUMURA) in view of U.S. Patent No. 6,039,316 (hereinafter JACKSON). This rejection is respectfully traversed in view of following arguments and remarks.

Claim 8 has been amended to clarify the structure of the computer program product for controlling the movement of a carrier traveling within a material transport system. Amended claim 8 recites a computer system to control the movement of a carrier within the material transport system. The computer system includes a director controller that is configured to control a director connecting a first track zone and a second track zone to perform optimal routing of the carrier in the material transport system having more than one path to a destination. The computer system further includes a first control thread configured to control and monitor operations of the first track zone, and a second control thread configured to control and monitor operations of the second track zone.

NAKAMURA discloses a distributed computing system including a plurality of semiconductor exposure units to manage data files (see Figures 9 – 15). NAKAMURA further discloses that the production control program instructs the start of exposure work to the semiconductor exposure units. The Applicants' respectfully submit that NAKAMURA does not disclose a material transport system having tracks with conveyors to move the material from one place to another. Hence, NAKAMURA can not disclose, teach, or suggest a computer system having a director controller configured to control a director to perform optimal routing of a material in the material transport system having more than one path to a destination. For the same reason, NAKAMURA cannot disclose, teach, or suggest a computer system having control threads configured to monitor operations of track zones, the track zones having at least one conveyor to move the material from a point to another point in the track zones.

Regarding routing, in the Office Action mailed on May 18, 2007, the Office noted that NAKAMURA's exposure work information management program performs optimal routing based on various factors, hence, this program has to route the wafers to the correct exposure unit so as to have a particular batch of wafers processed. The Applicants respectfully disagree because NAKAMURA's exposure work information management system does not provide any routing. NAKAMURA column 5 lines 41-50 thoroughly explain the function of the exposure work information management program. The exposure work information management program checks for the presence or absence of the job necessary for exposure work and manages input/output into and from the storage. The Applicants further submit that word "storage" in NAKAMURA means computer storage as explained in NAKAMURA throughout. The Applicants further directs the Office to the Abstract of NAKAMURA which explains that embodiments of NAKAMURA handles exchange of exposure work information within a plurality of connected units, NAKAMURA does not provide any disclosure as to a material transport system having more than one path to a destination and control threads configured to monitor operations of track zones.

SORAOKA discloses a vacuum processing apparatus having a cassette table for mounting a plurality of cassettes containing a sample and an atmospheric transfer means. An atmospheric robot is provided for transferring the sample and cassettes for holding the sample. The atmospheric robot is movably installed on a rail and operates to transfer a sample from a cassette to the load lock chamber on the load side and from the load lock chamber on the unload side. These teachings are different because SORAOKA does not disclose a material transport system having more than one path to a destination. The rail as disclosed in SORAOKA is providing a movement of a sample from the cassette to the load lock chamber in a single fixed path between two points. Hence, SORAOKA can not teach, disclose, or suggest a director controller a director controller configured to control a director to perform optimal routing of a material in the material transport system having more than one path to a destination. For the same reason, NAKAMURA cannot disclose, teach, or suggest a computer system having control threads configured to monitor operations of track zones, the track zones having at least one conveyor to move the material from a point to another point in the track zones.

JACKSON discloses a multi-hierarchical control system for controlling object motion in which an object can travel along the transport assembly without contacting either the upper or lower section. Embedded in both the upper and lower sections are arrays of spatially fixed MEMS that dynamically support, move, and guide the objects through the transport assembly. JACKSON further discloses that each computational element maps to a region of the transport assembly, which includes one or more sensors and actuators. The actuators are used to provide a physical force to move the object. JACKSON column 7, lines 40-41 discloses that each group of computation elements makes decisions independently of any other group. These teachings are different because due to a decentralized computational system containing computational elements working independently and not aware of an

optimal routing path, the system disclosed by JACKSON does not control and ensure optimal routing of the object in the material transport system having more than one path to a destination.

Therefore, NAKAMURA, SORAOKA, and JACKSON, either alone or combined, fail to teach, suggest, or disclose, either expressly or inherently, all the elements of Applicants' independent claims.

Conclusion

In view of these clarifying claims, the Applicants submit that the cited references do not suggest the recited elements.

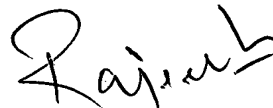
The Applicants respectfully submit that all of the pending claims are in condition for allowance. Accordingly, a notice of allowance is respectfully requested. If the Examiner has any questions concerning the present Amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6927.

If any additional fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. ASTGP117).

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